

10/540, 168

**EAST Search History**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	ep near1 "672673"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:44
L2	0	wo near1 "2002062398"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:44
L3	3	"2002062398"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:46
L4	5	("2004096393").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/10/09 11:47
L5	2	("7115720").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/10/09 11:48
L6	0	("nanoparticle\$1sameiminobis").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/10/09 11:49
L7	2	nanoparticle\$1 same iminobis	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:51
L8	0	nanoparticle\$1 same aminoalkylphosphorus	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:51

## EAST Search History

L9	0	nanoparticle\$1 same organophospho	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:52
L10	0	(burkhard near1 kohler or kerstin near1 bohmann or werner near1 hoheisel or markus near1 haase or stefan near1 haubold or christiane near1 meyer or thorsten near1 heidelberg) and nanoparticle\$1 and (modifying adj agent)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:55
L11	44	(burkhard near1 kohler or kerstin near1 bohmann or werner near1 hoheisel or markus near1 haase or stefan near1 haubold or christiane near1 meyer or thorsten near1 heidelberg) and nanoparticle\$1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:55
L12	2	l11 and iminobis	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:55
L13	1	l11 and (modifying adj reagent\$1)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:56
L14	85	(nanoparticle\$1 same (modifying or growth adj control\$4)).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:58
L15	7	(nanoparticle\$1 same (modifying adj reagent\$1 or growth adj control\$4)).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/09 11:58

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10/540,168

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NEWS 24	OCT 02	CA/CAPplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS EXPRESS	19 SEPTEMBER 2007:	CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.
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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

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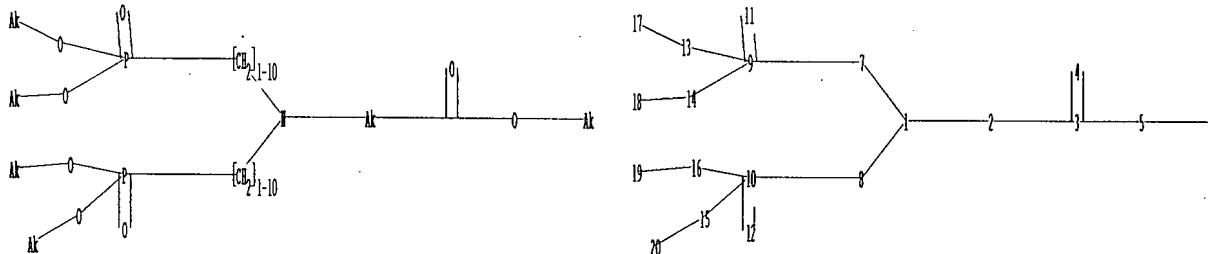
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chain nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20  
chain bonds :  
1-2 1-7 1-8 2-3 3-4 3-5 5-6 7-9 8-10 9-11 9-13 9-14 10-12 10-15 10-16  
13-17 14-18 15-20 16-19  
exact/norm bonds :  
1-2 2-3 3-4 3-5 5-6 9-11 9-13 9-14 10-12 10-15 10-16 13-17 14-18 15-20  
16-19  
exact bonds :  
1-7 1-8 7-9 8-10

Match level :

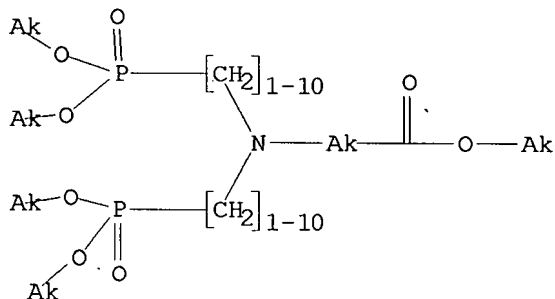
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS  
18:CLASS 19:CLASS 20:CLASS

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 11:28:50 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 108 TO ITERATE

100.0% PROCESSED 108 ITERATIONS  
SEARCH TIME: 00.00.01

1 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 1537 TO 2783

PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> s 11 sss full

FULL SEARCH INITIATED 11:28:58 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 2076 TO ITERATE

100.0% PROCESSED 2076 ITERATIONS  
SEARCH TIME: 00.00.01

13 ANSWERS

L3 13 SEA SSS FUL L1

=> FIL CAPLUS

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.10

172.31

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FILE LAST UPDATED: 8 Oct 2007 (20071008/ED)

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=> s 13

L4

9 L3

=> s 14 and (nanoparticle or particle or metal salt)

52871 NANOPARTICLE

88842 NANOPARTICLES

93169 NANOPARTICLE

(NANOPARTICLE OR NANOPARTICLES)

768877 PARTICLE

840981 PARTICLES

1277936 PARTICLE

(PARTICLE OR PARTICLES)

1778378 METAL

887924 METALS

2151290 METAL

(METAL OR METALS)

821640 SALT

629007 SALTS

1215448 SALT

(SALT OR SALTS)

74527 METAL SALT

(METAL (W) SALT)

L5

1 L4 AND (NANOPARTICLE OR PARTICLE OR METAL SALT)

=> d 15 ibib abs hitstr tot

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:525918 CAPLUS

DOCUMENT NUMBER: 141:94785

TITLE: Production and use of nanoparticles with in-situ-modified surface using multifunctional modifiers

INVENTOR(S): Koehler, Burkard; Bohmann, Kerstin; Hoheisel, Werner;

Haase, Markus; Haubold, Stefan; Meyer, Christiane;  
Heidelberg, Thorsten  
PATENT ASSIGNEE(S): Bayer Ag, Germany  
SOURCE: Ger. Offen., 14 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10259935	A1	20040701	DE 2002-10259935	20021220
WO 2004058914	A1	20040715	WO 2003-EP13816	20031206
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003292201	A1	20040722	AU 2003-292201	20031206
EP 1578888	A1	20050928	EP 2003-767759	20031206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006514887	T	20060518	JP 2004-562696	20031206
US 2006063155	A1	20060323	US 2005-540168	20050829
PRIORITY APPLN. INFO.:			DE 2002-10259935	A 20021220
			WO 2003-EP13816	W 20031206

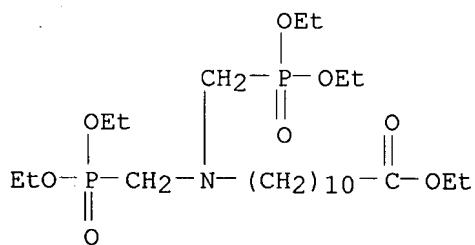
OTHER SOURCE(S): MARPAT 141:94785

AB The present invention concerns procedures for the synthesis of nanoparticles, especially metal salt nanoparticles, and in particular the chemical modification their surfaces to attach functional groups providing properties required for future use. According to the invention the addition of a modifying agent to the synthesis mixture leads to attachment of a 1st functional group to the nanoparticle surface which is then bonded to specifically selected mols. carrying a 2nd functional group. Thus a post synthetic, sep. use-specific modification step is unnecessary. Advantageously addition of a 3rd functional group is possible. A new substance class, the imino-bis(methylenephosphono)carboxylic acid pentaalkyl esters, are particularly suitable as modifying agents. These modifying agents permit the growth of the nanoparticles with controlled and simultaneous modification of the surface during synthesis (in situ) in such a way that the particles are very soluble in a multiplicity of solvents, and can be used for coupling of mols. with functional groups, e.g., antibodies; the particles possess an all around usefulness.

IT 711029-60-6P 711029-61-7P 714231-05-7P  
RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)  
(surface modifier; production and use of nanoparticles with in-situ-modified surface using multifunctional modifiers)

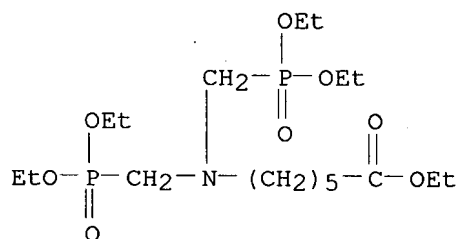
RN 711029-60-6 CAPLUS

CN Undecanoic acid, 11-[bis[(diethoxyphosphinyl)methyl]amino]-, ethyl ester  
(CA INDEX NAME)



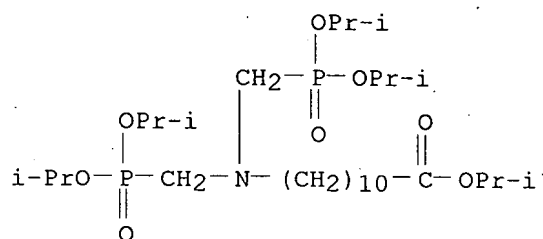
RN 711029-61-7 CAPLUS

CN Hexanoic acid, 6-[bis[(diethoxyphosphinyl)methyl]amino]-, ethyl ester (CA INDEX NAME)



RN 714231-05-7 CAPLUS

CN Undecanoic acid, 11-[bis[[bis(1-methylethoxy)phosphinyl]methyl]amino]-, 1-methylethyl ester (CA INDEX NAME)



=> s 14 not 15

L6 8 L4 NOT L5

=> d 16 ibib abs hitstr tot

L6 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1186084 CAPLUS

DOCUMENT NUMBER: 146:134941

TITLE: Design of phosphorylated dendritic architectures to promote human monocyte activation

AUTHOR(S): Poupot, Mary; Griffe, Laurent; Marchand, Patrice; Maraval, Alexandrine; Rolland, Olivier; Martinet, Ludovic; L'faqihi-Olive, Fatima-Ezzahra; Turrin, Cedric-Olivier; Caminade, Anne-Marie; Fournie, Jean-Jacques; Majoral, Jean-Pierre; Poupot, Remy

CORPORATE SOURCE: INSERM, U.563, Centre de Physiopathologie de Toulouse-Purpan, Toulouse, F-31300, Fr.

SOURCE: FASEB Journal (2006), 20(13), 2339-2351

CODEN: FAJOEC; ISSN: 0892-6638

PUBLISHER: Federation of American Societies for Experimental



DOCUMENT TYPE: Biology  
Journal  
LANGUAGE: English

AB As first defensive line, monocytes are a pivotal cell population of innate immunity. Monocyte activation can be relevant to a range of immune conditions and responses. Here the authors present new insights into the activation of monocytes by a series of phosphonic acid-terminated, phosphorus-containing dendrimers. Various dendritic or subdendritic structures were synthesized and tested, revealing the basic structural requirements for monocyte activation. The authors showed that multivalent character and phosphonic acid capping of dendrimers are crucial for monocyte targeting and activation. Confocal videomicroscopy showed that a fluorescein-tagged dendrimer binds to isolated monocytes and gets internalized within a few seconds. The authors also found that dendrimers follow the phagolysosomal route during internalization by monocytes. Finally, the authors performed fluorescence resonance energy transfer (FRET) expts. between a specifically designed fluorescent dendrimer and phycoerythrin-coupled antibodies. The authors showed that the typical innate Toll-like receptor (TLR)-2 is clearly involved, but not alone, in the sensing of dendrimers by monocytes. In conclusion, phosphorus-containing dendrimers appear as precisely tunable nanobiotools able to target and activate human innate immunity and thus prove to be good candidates to develop new drugs for immunotherapies.

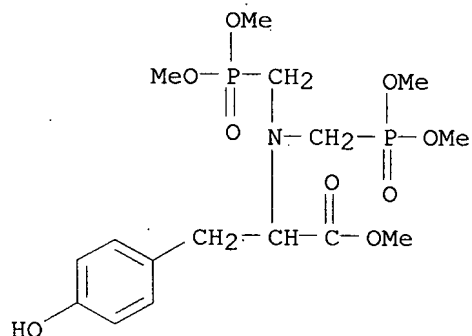
IT 918636-16-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(design of phosphorylated dendritic architectures to promote human monocyte activation)

RN 918636-16-5 CAPLUS

CN Tyrosine, N,N-bis[(dimethoxyphosphinyl)methyl]-, methyl ester (CA INDEX NAME)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1159435 CAPLUS

DOCUMENT NUMBER: 146:245773

TITLE: Assessment of novel inhibitors of Helicoverpa amino peptidases as anti-insect agents

AUTHOR(S): Duncan, Ann-Maree; Ren, Hua; Bound, Fleur; Tully, Jon; Chandler, David S.; Sandeman, R. Mark

CORPORATE SOURCE: Department of Agricultural Sciences, La Trobe University, Bundoora, Victoria, 3083, Australia  
Pest Management Science (2006), 62(11), 1098-1108

SOURCE: CODEN: PMSCFC; ISSN: 1526-498X

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Helicoverpa species present problems worldwide as pests on a variety of agricultural crops. In Australia, the costs of controlling *H. armigera* (Hubn.) and *H. punctigera* (Wall.) are a major burden on the cotton industry, and novel mechanisms are continually sought to combat these pests. Potential new targets for insecticides are the digestive proteases of the insect, including the aminopeptidases (APs). A variety of compds., designed to be similar in structure to known AP inhibitors, were synthesized and screened for activity in inhibiting *H. armigera* larval growth and AP activity. The most effective compds. in both assays proved to be hydroxamic acids and methylphosphonic acids. Compds. that incorporated both of these groups were also found to have significant potential as control agents. The most inhibitory compds. included valine methylphosphonic acid and a leucine methylphosphonic acid/hydroxamic acid derivative. The valine methylphosphonic acid was tested further in vitro, with the aim of producing a new active capable of restricting the viability of *Helicoverpa* populations on com. crops.

IT 925216-39-3

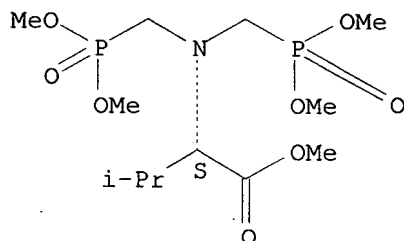
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(*Helicoverpa armigera* aminopeptidase inhibitor as potential insecticide)

RN 925216-39-3 CAPLUS

CN L-Valine, N,N-bis[(dimethoxyphosphinyl)methyl]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:525919 CAPLUS

DOCUMENT NUMBER: 141:71719

TITLE: Preparation of new iminobis(methylenephosphono)carboxylic acid pentaalkyl ester

INVENTOR(S): Koehler, Burkhard; Bohmann, Kerstin; Hoheisel, Werner

PATENT ASSIGNEE(S): Bayer Ag, Germany

SOURCE: Ger. Offen., 4 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

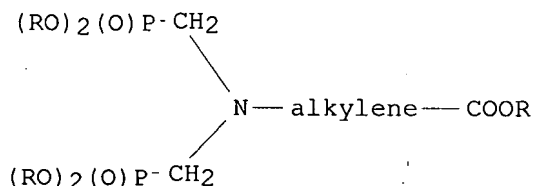
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10259937	A1	20040701	DE 2002-10259937	20021220
WO 2004058780	A1	20040715	WO 2003-EP14025	20031211
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,  
 NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,  
 TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,  
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 AU 2003298172 A1 20040722 AU 2003-298172 20031211  
 EP 1581541 A1 20051005 EP 2003-795881 20031211  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
 PRIORITY APPLN. INFO.: DE 2002-10259937 A 20021220  
 WO 2003-EP14025 W 20031211  
 OTHER SOURCE(S): CASREACT 141:71719; MARPAT 141:71719  
 GI

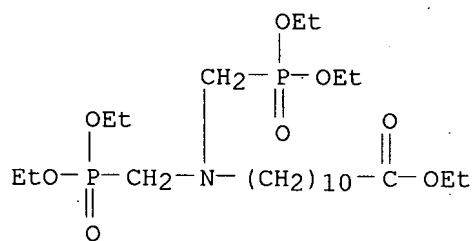


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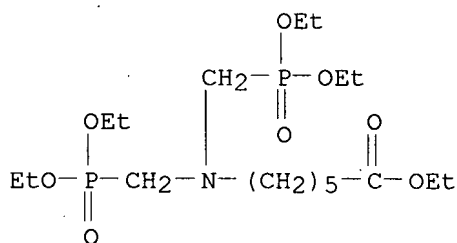
AB The invention concerns preparation of new iminobis(methylenephosphono)carboxylic acid pentaalkyl ester I (R = C1-4 alkyl; alkylene = C1-22 alkylene, C7-20 alkylenearyl, CO<sub>2</sub>R, alkoxy, bis(dialkoxyphosphorylmethyl)amino, aryl, etc.), available by the reaction of iminobis(methylenephosphono)carboxylic acid with trialkyl orthoformate. Thus, reaction of 11-aminoundecanoic acid with phosphoric acid in presence of concentrate HCl at 100° followed by treatment with formaldehyde gave iminobis(methylenephosphono)undecanoic acid which on treatment with tri-Et orthoformate gave title compound, iminobis(methylenephosphono)undecanoic acid pentaethyl ester.

IT 711029-60-6P 711029-61-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of new iminobis(methylenephosphono)carboxylic acid pentaalkyl esters starting from aminocarboxylic acid)

RN 711029-60-6 CAPLUS  
 CN Undecanoic acid, 11-[bis[(diethoxyphosphinyl)methyl]amino]-, ethyl ester  
 (CA INDEX NAME)



RN 711029-61-7 CAPLUS  
 CN Hexanoic acid, 6-[bis[(diethoxyphosphinyl)methyl]amino]-, ethyl ester (CA INDEX NAME)



L6 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:615449 CAPLUS

DOCUMENT NUMBER: 137:154956

TITLE: Preparation of tetraazacyclododecanes as complexing agents for radionuclides for use in diagnostic and therapeutic applications

INVENTOR(S): Fritzberg, Alan R.

PATENT ASSIGNEE(S): Neorx Corporation, USA

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2

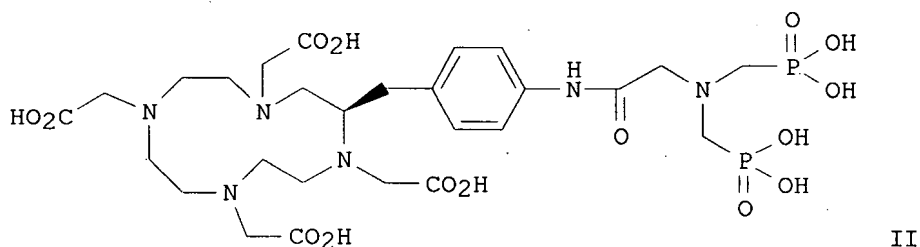
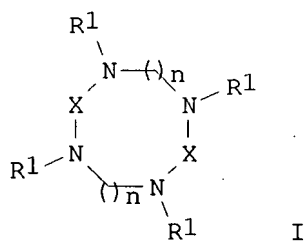
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062398	A2	20020815	WO 2002-US629	20020108
WO 2002062398	A3	20031218		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2434302	A1	20020815	CA 2002-2434302	20020108
AU 2002249935	A1	20020819	AU 2002-249935	20020108
EP 1390081	A2	20040225	EP 2002-718819	20020108
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2004536034	T	20041202	JP 2002-562403	20020108
US 2004096393	A1	20040520	US 2003-615484	20030708
US 7115720	B2	20061003		
US 2006251578	A1	20061109	US 2006-486338	20060713
PRIORITY APPLN. INFO.:			US 2001-260349P	P 20010108
			WO 2002-US629	W 20020108
			US 2003-615484	A1 20030708
OTHER SOURCE(S):	MARPAT 137:154956			
GI				



AB Title compds. I [R1 = H, alkyl, optionally substituted with carboxy; X = (CH2)n, etc.; n = 2-4; I is substituted on one or more carbons other than a carbon of R1 with one or more groups Y(PO3H2)m; Y = linker group; m is 1-6] were prepared as complexing agents for radionuclides. For instance, (S)-2-(p-Nitrobenzyl)-1,4,7,10-tetraazacyclododecane trihydrochloride was treated with K2CO3, tert-Bu bromoacetate in DMF at 50-55° for 3 h to afford the corresponding tetra-ester. This intermediate was reduced to the aminobenzyl derivative (MeOH, 10% Pd/C, 50 psi H2, 3 h), subsequently acylated with HO2CCH2N[CH2PO(OEt)2]2•HCl (preparation given; DMF, BOP, DIEA) to give an intermediate which upon treatment with TMSBr yielded chelate II. Complexes of I and radionuclides described herein are useful for bone marrow suppression, cancer therapy, etc. and may possess improved stability, improved uptake in bone or improved retention in bone.

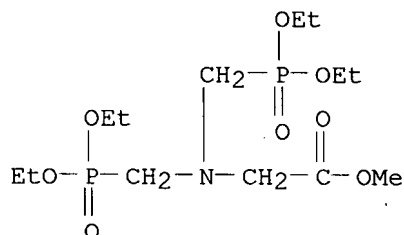
IT 172153-06-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of intermediates used for preparation of tetraazacyclododecanes for radionuclide complexing agents)

RN 172153-06-9 CAPLUS

CN Glycine, N,N-bis[(diethoxyphosphinyl)methyl]-, methyl ester (9CI) (CA INDEX NAME)



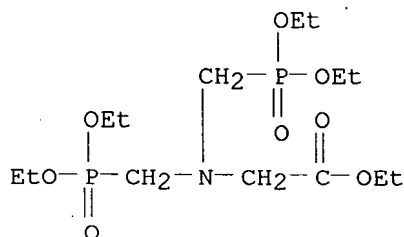
L6 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:370152 CAPLUS

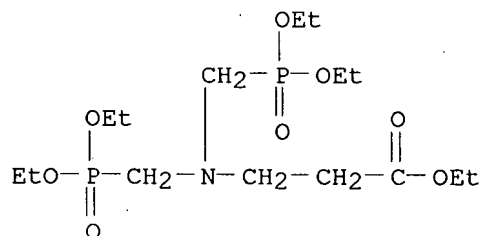
DOCUMENT NUMBER: 125:87146

TITLE: Synthesis of esters of diphosphorus-substituted amino

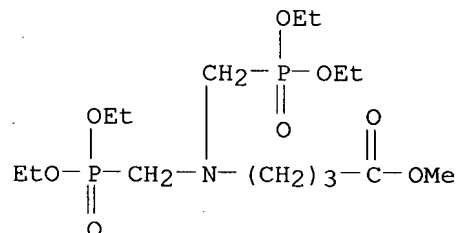
acids with four- and five-coordinate phosphorus atoms  
 AUTHOR(S): Prishchenko, A. A.; Livantsov, M. V.; Novikova, O. P.;  
 Livantsova, L. I.; Luzikov, Yu. N.  
 CORPORATE SOURCE: Mosk. Gos. Univ., Moscow, Russia  
 SOURCE: Zhurnal Obshchei Khimii (1995), 65(10), 1749-1750  
 CODEN: ZOKHA4; ISSN: 0044-460X  
 PUBLISHER: Nauka  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 125:87146  
 AB Heating N,N-bis(butoxymethyl) amino acid esters with di-Et phosphite or  
 hydrospirophosphorane afforded title diphosphorus derivs., e.g.,  
 [(EtO)2P(O)CH2]2N(CH2)nCO2R (n = 1, 2, R = Et; n = 3, R = Me).  
 IT 178883-71-1P 178883-72-2P 178883-73-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (synthesis of diphosphorus-substituted amino acid esters)  
 RN 178883-71-1 CAPLUS  
 CN Glycine, N,N-bis[(diethoxyphosphinyl)methyl]-, ethyl ester (9CI) (CA  
 INDEX NAME)



RN 178883-72-2 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[(diethoxyphosphinyl)methyl]-, ethyl ester (9CI)  
 (CA INDEX NAME)

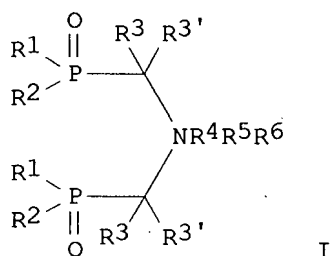


RN 178883-73-3 CAPLUS  
 CN Butanoic acid, 4-[bis[(diethoxyphosphinyl)methyl]amino]-, methyl ester  
 (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1995:994430 CAPLUS  
 DOCUMENT NUMBER: 124:56310  
 TITLE: Non-cyclic chelating agents based on  
 aminodialkylphosphorus oxides for the preparation of  
 technetium or rhenium complexes  
 INVENTOR(S): Stahl, Wilhelm; Walch, Axel; Doll, Wilfried; Kuhlmann,  
 Ludwig; Puetter, Dietrich  
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany  
 SOURCE: Eur. Pat. Appl., 18 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

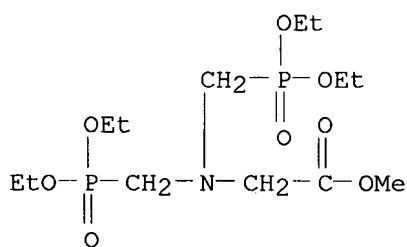
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 672673	A1	19950920	EP 1995-103404	19950309
R: AT, BE, CH, DE, DK, FR, GB, IE, IT, LI, NL, SE				
DE 4408729	A1	19950921	DE 1994-4408729	19940315
CA 2144588	A1	19950916	CA 1995-2144588	19950314
NO 9500971	A	19950918	NO 1995-971	19950314
JP 07278166	A	19951024	JP 1995-54639	19950314
PRIORITY APPLN. INFO.:			DE 1994-4408729	A 19940315
OTHER SOURCE(S):	MARPAT 124:56310			
GI				



AB The preparation of title compds. I (R1 = OH, amino, thio; R2 = H, OH, amino, thio, C1-4 alkyl, Ph, benzyl, C1-4 alkoxy, phenyloxy, benzyloxy, C1-4 alkylamino, phenylamino, benzylamino, C1-4 mercaptoalkyl, thiophenyl, mercaptobenzyl; R3, R3' = same or different H, C1-4 alkyl; R4 = C0-6 alkenyl, o-, m-, p-C7-15 araalkylene; R5 = amino, OH, thio, ester or amide group, CH2, substituted CH, CHNH2, CHOH; R6 = CO2H, CH2, substituted CH, CHNH2, CHOH, etc.), useful for labeling of radioactive technetium or rhenium isotopes is described. Thus, reaction of glycine Me ester hydrochloride with di-Et phosphate in the presence of powdered mol. sieves in MeCN followed by treatment with paraformaldehyde gave 80% di[N-methyl(diethylphosphonyl)]glycine Me ester which on concentrate HCl hydrolysis gave 94% title compound di[N-methyl(phosphonyl)]glycine.

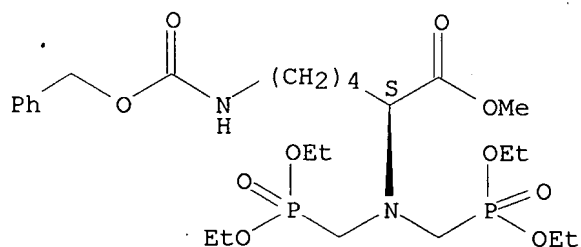
IT 172153-06-9P 172153-07-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of non-cyclic chelating agents based on aminodialkylphosphorus oxides for labeling of technetium or rhenium complexes)

RN 172153-06-9 CAPLUS  
 CN Glycine, N,N-bis[(diethoxyphosphinyl)methyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 172153-07-0 CAPLUS  
 CN 11-Oxa-2,8-diaza-10-phosphatridecanoic acid, 8-  
 [(diethoxyphosphinyl)methyl]-10-ethoxy-7-(methoxycarbonyl)-, phenylmethyl  
 ester, 10-oxide, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1984:187352 CAPLUS  
 DOCUMENT NUMBER: 100:187352  
 TITLE: N-Organophosphonomethylglycine N-oxides and their use  
 to increase the sucrose content of sugarcane  
 INVENTOR(S): Franz, John E.  
 PATENT ASSIGNEE(S): Monsanto Co. , USA  
 SOURCE: U.S., 4 pp. Cont.-in-part of U.S. Ser. No. 6133,707,  
 abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4435204	A	19840306	US 1980-133379	19800324
AT 792975	A	19780215	AT 1975-7929	19731210
AT 345864	B	19780815		
AT 343135	B	19780510	AT 1975-7931	19751017
DK 7600537	A	19760210	DK 1976-537	19760210
DK 141951	B	19800728		
DK 141951	C	19801215		
DK 7600538	A	19760210	DK 1976-538	19760210
DK 142162	B	19800915		
DK 142162	C	19810216		
PRIORITY APPLN. INFO.:			US 1972-313706	A3 19721211
			US 1975-613707	A2 19750915
			AT 1973-10302	A 19731210
			DK 1973-6678	A 19731210

OTHER SOURCE(S): MARPAT 100:187352  
 AB Phosphonomethylglycine N-oxides, prepared as described in US 4,062,669,



increased sucrose [57-50-1] content of sugarcane when applied 2-10 wk prior to harvest, at .apprx.0.112-5.6 kg/ha. Examples are:  
 N-phosphonomethyliminodiacetic acid N-oxide [53792-63-5],  
 N-methyl-N-phosphonomethylglycine N-oxide [53792-84-0], and Et  
 N,N-bis(phosphonomethyl)glycine N-oxide [69595-84-2]. These compds.  
 increased juice purity percentage and sucrose content (Pol percent cane).

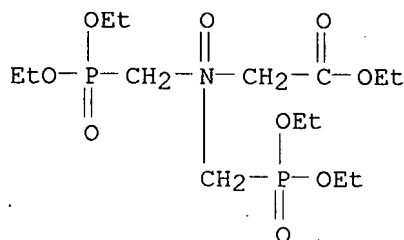
IT 90041-39-7 90041-41-1

RL: BIOL (Biological study)

(sucrose content increase by, in sugarcane)

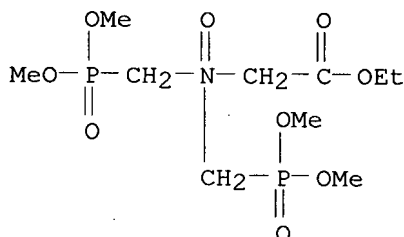
RN 90041-39-7 CAPLUS

CN Glycine, N,N-bis[(diethoxyphosphinyl)methyl]-, ethyl ester, N-oxide (9CI)  
 (CA INDEX NAME)



RN 90041-41-1 CAPLUS

CN Glycine, N,N-bis[(dimethoxyphosphinyl)methyl]-, ethyl ester, N-oxide (9CI)  
 (CA INDEX NAME)



L6 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1979:168676 CAPLUS

DOCUMENT NUMBER: 90:168676

TITLE: Derivatives of aminomethylphosphonic acid

AUTHOR(S): Anon.

CORPORATE SOURCE: UK

SOURCE: Research Disclosure (1979), 177, 50-2 (No. 17751)

CODEN: RSDSBB; ISSN: 0374-4353

DOCUMENT TYPE: Journal; Patent

LANGUAGE: English

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RD 177051		19790110		

PRIORITY APPLN. INFO.: RD 1979-177051 19790110

AB The reaction of phosphites with formalin and amines gave 11 title compds. Thus, 0.05 mol Me glycinate in benzene was treated with 0.1 mol formalin and 0.1 mol HOP(OPh)<sub>2</sub> to give [(PhO)<sub>2</sub>P(O)CH<sub>2</sub>]<sub>2</sub>NCH<sub>2</sub>CO<sub>2</sub>Me (I). At 11.2 kg/ha after 4 wk, I had effected 100% kill of Canada Thistle, Cocklebur and Smartweed.

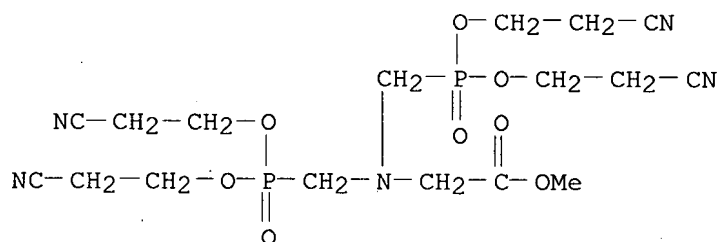
IT 69981-75-5P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except

adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and herbicidal activity of)

RN 69981-75-5 CAPLUS

CN Glycine, N,N-bis[[bis(2-cyanoethoxy)phosphinyl]methyl]-, methyl ester (9CI) (CA INDEX NAME)



=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

63.46

235.77

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-7.02

-7.02

STN INTERNATIONAL LOGOFF AT 11:39:00 ON 09 OCT 2007